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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,821	12/09/2003	Masaaki Nishijima	42478-9317	4357

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SNELL & WILMER LLP  
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IRVINE, CA 92614-7230

EXAMINER
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WARREN, MATTHEW E

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/731,821

Applicant(s)

NISHIJIMA

Examiner

Matthew E. Warren

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2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 6 and 10-30 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 12-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10, 11 and 27-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/928,733.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/9/03
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is in response to the Election and Amendment filed on December 13, 2004.

#### ***Election/Restrictions***

Applicant's election of Species IV, claims 10 and 11 in the reply filed on December 13, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 6 and 12-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 11, and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant's Prior Art Figures 8C and 8D (APAF) in view of Yeh et al. (US 6,294,834 B1).

In re claim 10, the APAF 8C and 8D shows an RF passive circuit comprising; a semiconductor substrate (824); a via-hole (821) which is formed by applying a metal film (827) on an inside wall of a hole provided through the semiconductor substrate; a dielectric layer (834 and 832) which is formed on a main surface of the semiconductor substrate so as to cover the metal film; and an inductor (814) which is a spirally-formed metal layer formed on the dielectric layer. The APAF shows that a capacitor (815) is connected to the inductor. The APAF shows all of the elements of the claims except the inductor forming a static capacity where one part faces the metal film of the via hole. Yeh et al. shows (fig. 1) a capacitor (32) formed over a substrate contact hole (20) and an inductor (L) formed over and in contact with the capacitor. With this configuration, an RF circuit can be formed having a reduced layout area (col. 4, lines 48-67). Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the RF circuit of the APAF by forming the inductor over the capacitor as taught by Yeh to form an RF circuit having a reduced layout.

In re claim 11, the recitation that "an RF choke used in at least one of a matching circuit and a bias feeding circuit, both circuits being included in an RF amplifier" has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 187 F.2d at 152, 88 USPQ2d at 480-81. See also MPEP § 2111.02

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Furthermore, the limitations of the preamble constitute an "intended use" limitation. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F. 2d 1647 (1987). However, the APAF 8C and 8D disclose an RF choke used in at least one of a matching circuit and a bias feeding circuit, both circuits being included in an RF amplifier (Applicant's Spec pg. 2, lines 20-22).

In re the remaining limitations of claim 11, the APAF 8C and 8D shows an RF passive circuit comprising; a semiconductor substrate (824); a via-hole (821) which is formed by applying a metal film (827) on an inside wall of a hole provided through the semiconductor substrate; a dielectric layer (834 and 832) which is formed on a main surface of the semiconductor substrate so as to cover the metal film; and an inductor (814) which is a spirally-formed metal layer formed on the dielectric layer. The APAF shows that a capacitor (815) is connected to the inductor. The APAF shows all of the elements of the claims except the inductor forming a static capacity where one part faces the metal film of the via hole. Yeh et al. shows (fig. 1) a capacitor (32) formed over a substrate contact hole (20) and an inductor (L) formed over and in contact with the capacitor. With this configuration, an RF circuit can be formed having a reduced layout area (col. 4, lines 48-67). Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the RF circuit of the APAF by forming the inductor over the capacitor as taught by Yeh to form an RF circuit having a reduced layout.

In re claim 27, the APAF 8D already shows that the inductor (814) is connected to an input matching parallel capacitor having a first terminal (829) on one side of a dielectric layer (828) and a second terminal (831) on the other side of the dielectric layer.

In re claims 28-30, the APAF discloses (App. Spec. pg. 5, lines 1-15) that the first and second terminals and the inductor contain gold. The APAF also disclose that the dielectric layer has a permittivity of at least 100.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fujii (US 6,355,970) also shows an RF circuit having a inductor and capacitor formed together over a substrate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Warren whose telephone number is (571) 272-1737. The examiner can normally be reached on Mon-Thur and alternating Fri 9:00-5:00pm.

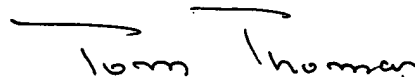
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MEW

March 16, 2005

A handwritten signature in black ink that reads "Tom Thomas". The signature is written in a cursive style with a horizontal line above the first name.

TOM THOMAS  
SUPERVISORY PATENT